

# CHEMISTRY B.S. - FORENSIC CHEMISTRY

## Bachelor of Science - Chemistry; Forensic Chemistry Concentration

### College of Humanities & Sciences

Degree Specific Credits: 101

Required Cumulative GPA: 2.0

Catalog Year: 2018-2019

## General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umd.edu/academics/general-education-requirements>) of the catalog.

## Summary

Code	Title	Hours
Lower-Division Core Courses		52
	General Chemistry	
	Organic Chemistry	
	Biochemistry and Biology	
	Physics	
	Mathematics	
	Forensic Science and Criminal Justice	
Upper-Division Core Courses		29
	Analytical Chemistry	
	Physical Chemistry	
	Inorganic Chemistry	
	Biochemistry	
	Experiential Learning	
	Seminar	
	Statistics	
Advanced Electives		11
	Expressive Art - Public Speaking	3
	Social Science - Criminology	3
	Ethics	3
Total Hours		101

## Lower-Division Core Courses

### General Chemistry

Code	Title	Hours
<b>Complete all of the following courses:</b>		
CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	5
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	5
Total Hours		10

Minimum Required Grade: C-

### Organic Chemistry

Code	Title	Hours
<b>Complete all of the following courses:</b>		
CHMY 221 & CHMY 222	Organic Chemistry I and Organic Chemistry I Lab	5
CHMY 223 & CHMY 224	Organic Chemistry II and Organic Chemistry II Lab	5
Total Hours		10

Minimum Required Grade: C-

### Biochemistry and Biology

Code	Title	Hours
<b>Complete all of the following courses:</b>		
BCH 110	Intro Biology for Biochemists	3
BCH 111	Intro Biol for Biochemists Lab	1
BIOB 260	Cellular and Molecular Biology	4
Total Hours		8

Minimum Required Grade: C-

### Physics

Code	Title	Hours
<b>Complete all of the following courses:</b>		
PHSX 215N & PHSX 216N	Fund of Physics w/Calc I and Physics Laboratory I w/Calc	5
PHSX 217N & PHSX 218N	Fund of Physics w/Calc II and Physics Laboratory II w/Calc	5
Total Hours		10

Minimum Required Grade: C-

### Mathematics

Code	Title	Hours
<b>Complete all of the following courses:</b>		
M 171	Calculus I	4
M 172	Calculus II	4
Total Hours		8

Minimum Required Grade: C-

### Forensic Science and Criminal Justice

Code	Title	Hours
<b>Complete all of the following courses:</b>		
CJUS 125N	Fund of Forensic Science	3
SOCI 221	Criminal Justice System	3
Total Hours		6

Minimum Required Grade: C-

## Upper-Division Core Courses

**Rule:** All courses in all subcategories listed are required.

**Analytical Chemistry**

Code	Title	Hours
<b>Complete all of the following courses:</b>		
CHMY 311	Analytical Chem-Quant Analysis	4
CHMY 421	Advanced Instrument Analysis	4
Total Hours		8

Minimum Required Grade: C-

**Physical Chemistry**

Code	Title	Hours
<b>Complete the following course:</b>		
CHMY 373	Phys Chem-Kntcs & Thrmodynms	4
Total Hours		4

Minimum Required Grade: C-

**Inorganic Chemistry**

Code	Title	Hours
<b>Complete the following course:</b>		
CHMY 401	Advanced Inorganic Chemistry	3
Total Hours		3

Minimum Required Grade: C-

**Biochemistry**

Code	Title	Hours
<b>Complete all of the following courses:</b>		
BCH 480	Advanced Biochemistry I	3
BCH 482	Advanced Biochemistry II	3
Total Hours		6

Minimum Required Grade: C-

**Experiential Learning**

Code	Title	Hours
<b>Complete one of the following courses:</b>		
CHMY 488	Forensic Research	3
or CHMY 498	Internship/Cooperative Educ	
Total Hours		3

Minimum Required Grade: C-

**Seminar**

Code	Title	Hours
<b>Complete the following course:</b>		
CHMY 489	Forensic Research Seminar	1
Total Hours		1

Minimum Required Grade: C-

**Statistics**

Code	Title	Hours
<b>Complete all of the following courses:</b>		
STAT 451	Statistical Methods I	3
STAT 457	Computer Data Analysis I	1
Total Hours		4

Minimum Required Grade: C-

**Advanced Electives****Rule:** 8 of the 11 credits must be numbered 300 or above to satisfy this requirement.

Code	Title	Hours
<b>Complete 11 credits from the following courses:</b>		
CHMY 465	Organic Spectroscopy	11
CHMY 466	FT-NMR Optn for Undrgrd Rsrch	
CHMY 542	Separation Science	
CJUS 488	Forensic Science the Crime Lab and Beyond	
PHAR 110N	Use & Abuse of Drugs	
Total Hours		11

Minimum Required Grade: C-

**Expressive Art - Public Speaking**

Code	Title	Hours
<b>Complete the following course:</b>		
COMX 111A	Introduction to Public Speaking	3
Total Hours		3

Minimum Required Grade: C-

**Social Science - Criminology**

Code	Title	Hours
<b>Complete the following course:</b>		
SOCI 211S	Introduction to Criminology	3
Total Hours		3

Minimum Required Grade: C-

**Ethics**

Code	Title	Hours
<b>Complete the following course:</b>		
CHMY 305E	Ethics, Literature and Writing in the Sciences	3
Total Hours		3

Minimum Required Grade: C-